RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/068,377A

DATE: 02/22/2001 TIME: 10:34:23 RECEIVED

MAR 0 1 2001

TECH CENTER 1600/2900

```
Input Set : A:\PTO.txt
```

Output Set: N:\CRF3\02222001\I068377A.raw

```
3 <110> APPLICANT: Lasky, Laurence A.
4 Dowbenko, Donald J.
6 <120> TITLE OF INVENTION: Tyrosine Phosphorylated Cleavage Furrow-Associated
7 Proteins (PSTPIPS)
9 <130> FILE REFERENCE: P1066P2
11 <140> CURRENT APPLICATION NUMBER: US 09/068,377A
12 <141> CURRENT FILING DATE: 1998-05-08
14 <150> PRIOR APPLICATION NUMBER: PCT/US98/01774
15 <151> PRIOR FILING DATE: 1998-01-30
17 <150> PRIOR APPLICATION NUMBER: US 08/938,830
18 <151> PRIOR FILING DATE: 1997-09-29
20 <150> PRIOR APPLICATION NUMBER: US 08/798,419
21 <151> PRIOR FILING DATE: 1997-02-07
```

Does Not Comply
Corrected Diskette Needed

See pp. 2-9

E--> 23 <160> NUMBER OF SEQ ID NOS: 73

510 <210> SEQ ID NO: 26

ERRORED SEQUENCES

```
511 <211> LENGTH: 907
512 <212> TYPE: PRT
513 <213> ORGANISM: Saccharomyces Pombe
515 <400> SEQUENCE: 26
516 Met Leu Thr Lys Ser Leu Gln Gly Ser Glu Asp Ala Gly Met Asp
517
       1
                       5
                                           10
519
     Ala Leu Met Ser Arg Thr Lys Ser Ser Leu Ser Val Leu Glu Ser
520
                      20
                                           25
522
    Ile Asp Glu Phe Tyr Ala Lys Arg Ala Ser Ile Glu Arg Glu Tyr
523
                      35
                                           40
525
    Ala Ser Lys Leu Gln Glu Leu Ala Ala Ser Ser Ala Asp Ile Pro
526
                      50
                                           55
528
    Glu Val Gly Ser Thr Leu Asn Asn Ile Leu Ser Met Arg Thr Glu
529
                      65
                                           70
531
    Thr Gly Ser Met Ala Lys Ala His Glu Glu Val Ser Gln Gln Ile
532
                      80
                                           85
534
    Asn Thr Glu Leu Arg Asn Lys Ile Arg Glu Tyr Ile Asp Gln Thr
535
                      95
                                          100
537
    Glu Gln Gln Lys Val Val Ala Ala Asn Ala Ile Glu Glu Leu Tyr
538
                     110
                                          115
540
    Gln Lys Lys Thr Ala Leu Glu Ile Asp Leu Ser Glu Lys Lys Asp
541
                     125
                                          130
                                                               135
    Ala Tyr Glu Tyr Ser Cys Asn Lys Leu Asn Ser Tyr Met Arg Gln
543
544
                     140
                                          145
                                                              150
546
    Thr Lys Lys Met Thr Gly Arg Glu Leu Asp Lys Tyr Asn Leu Lys
547
                     155
                                         160
                                                              165
549
    Ile Arg Gln Ala Ala Leu Ala Val Lys Lys Met Asp Ala Glu Tyr
550
                     170
                                          175
```

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

```
Arg Glu Thr Asn Glu Leu Leu Thr Val Thr Arg Glu Trp Ile
                                         190
                      185
  555
       Asp Arg Trp Thr Glu Val Cys Asp Ala Phe Gln His Ile Glu Glu
                                         205
  556
                      200
  558
       Tyr Arg Leu Glu Phe Leu Lys Thr Asn Met Trp Ala Tyr Ala Asn
  559
                      215
                                         220
  561
       Ile Ile Ser Thr Ala Cys Val Lys Asp Asp Glu Ser Cys Glu Lys
  562
                      230
                                         235
  564
       Ile Arq Leu Thr Leu Glu Asn Thr Asn Ile Asp Glu Asp Ile Thr
  565
                      245
                                         250
  567
       Gln Met Ile Gln Asn Glu Gly Thr Gly Thr Thr Ile Pro Pro Leu
  568
                      260
                                         265
       Pro Glu Phe Asn Asp Tyr Phe Lys Glu Asn Gly Leu Asn Tyr Asp
  570
  571
                      275
                                         280
  573
       Ile Asp Gln Leu Ile Ser Lys Ala Pro Ser Tyr Pro Tyr Ser Ser
  574
                      290
                                         295
  576
       Ser Arg Pro Ser Ala Ser Ala Ser Leu Ala Ser Ser Pro Thr Arg
  577
                      305
                                         310
  579
       Ser Ala Phe Arg Pro Lys Thr Ser Glu Thr Val Ser Ser Glu Val
  580
                      320
                                         325
  582
       Val Ser Ser Pro Pro Thr Ser Pro Leu His Ser Pro Val Lys Pro
  583
                      335
                                         340
  585
       Val Ser Asn Glu Gln Val Glu Gln Val Thr Glu Val Glu Leu Ser
  586
                      350
                                         355
  588
       Ile Pro Val Pro Ser Ile Glu Glu Ala Glu Ser Gln Lys Pro Val
  589
                                         370
  591
       Leu Thr Gly Ser Ser Met Arg Arg Pro Ser Val Thr Ser Pro Thr
  592
                                         385
  594
       Phe Glu Val Ala Ala Arg Pro Leu Thr Ser Met Asp Val Arg Ser
  595
                      395
                                         400
  597
       Ser His Asn Ala Glu Thr Glu Val Gln Ala Ile Pro Ala Ala Thr
  598
                      410
                                         415
  600
      Asp Ile Ser Pro Glu Val Lys Glu Gly Lys Asn Ser Glu Asn Ala
  601
                      425
                                         430
  603
      Ile Thr Lys Asp Asn Asp Asp Ile Ile Leu Ser Ser Gln Leu Gln
  604
                      440
                                        445
      Pro Thr Ala Thr Gly Ser Arg Ser Ser Arg Leu Ser Phe Ser Arg
  606
  607
                      455
                                         460
  609
      His Gly His Gly Ser Gln Thr Ser Leu Gly Ser Ile Lys Arg Lys
  610
                      470
                                         475
  612
      Ser Ile Met Glu Arg Met Gly
                                         Thr
                                                            G1 v
  613
                      485
                                         490
                                                            495
      Ser Ser Phe Ser
  619 <210> SEO ID NO: 33
  620 <211> LENGTH: 42
  621 <212> TYPE: DNA
                                    Indicates possible bad disk sector.
  622 <213> ORGANISM: Artificial Sequence
```

2/22/01

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

```
624 <220> FEATURE:
    625 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
                628
                     629 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
E--> 631 <400> SEQUENCE: 34
    632 cagtteggat ceatgatggt ceagaagage aagttgtege to 42
                                                    Possible for disk sector
E--> 634 <210> SEQ ID NO: 35
    635 <211> LENGTH: 42
W--> 640 <212> TYPE:
W--> 640 <213> ORGANISM:
E--> 640 <400> SEQUENCE: 37
    641 ttgacctcga gtcatcaccg ctcaggggtg ggagtcagag tc 42
E--> 643 <210> SEQ ID NO: 38
    644 <211> LENGTH: 40
E--> 645 <212> TYPE:
    649 <210> SEQ ID NO: 39
W--> 650 <211> LENGTH: 45
W--> 651 <212> TYPE: DNA
    652 <213> ORGANISM: Artificial Sequence
    654 <220> FEATURE:
    655 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
E--> 657 5400> SEQUENCE: 37
    E--> 661 <210> SEQ ID NO: 42
    662 <211> LENGTH: 47
    663 <212> TYPE: DNA
    664 <213> ORGANISM: Artificial Sequence
    666 <220> FEATURE:
    667 <223> OTHER INFORMATION: Synthetic
           669
           671 <220> FEATURE:
    672 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
E--> 674 <400> SEQUENCE: 43
E--> 675 gtctgaggag ctccgccgca gccttgcac 29
E--> 677 <210> SEQ ID NO: 44
   678 <211> LENGTH:
W--> 682 <212> TYPE:
W--> 682 <213> ORGANISM:
E--> 682 <400> SEQUENCE: 46
   683 cagggagtca aaggcggccg ccagggagtt catc 34
E--> 685 <210> SEQ ID NO: 47
   686 <211> LENGTH: 34
   687 <212> TYPE: DNA
W--> 688 <213> ORGANISM:
W--> 691 <211> LENGTH: 37
W--> 692 <212> TYPE: DNA
```

```
PATENT APPLICATION: US/09/068,377A
                                        TIME: 10:34:23
              Input Set : A:\PTO.txt
              Output Set: N:\CRF3\02222001\I068377A.raw
W--> 693 <213> ORGANISM: Artificial Sequence
   695 <220> FEATURE:
   696 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
E--> 698 <400> SEQUENCE: 48
E--> 699 cctccaagct
W--> 702 <213> ORGANISM: Artificial Sequence
   704 <220> FEATURE:
   705 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
W--> 707 <210> SEQ ID NO:
W--> 707 <211> LENGTH:
W--> 707 <212>-TYPE:
E--> 707 <400> SEQUENCE: 51
 ->/708 ggtcttcttg gcggccgcaa gcttgctctt
711 tottggacto ca 42
E--> 713 <210> SEQ ID NO: 53
E--> 724 <210> SEQ-ID-NO:-56
W--> 725 <211> LENGTH: 31
W--> 726 <212> TYPE: DNA
W--> 727 <213> ORGANISM: Artificial Sequence
   729 <220 FEATURE:
733 ≮220> FEATURE:
   734/<223> OTHER INFORMATION: Synthetic oligonucleotide probe
E--> 736\ <400> SEQUENCE: 57
   737 \ ggatggtgag ccggtctgcc tcctgcagct ggaggcc 37
742 ₹20> FEATURE:
   743 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
W--> 745 <210> SEQ ID NO:
W--> 745 <211> LENGTH:
W--> 745 <212> TYPE:
W--> 745 <213> ORGANISM:
E--> 745 <400> SEQUENCE: 60
   746 tccacatget tggacatctt cctg 24
 -> 748 <210> SEQ ID NO: 61
   749 <211> LENGTH: 41
   753 <210> SEQ ID NO: 62
  754 <211> LENGTH: 24
```

DATE: 02/22/2001

RAW SEQUENCE LISTING

Bad disk sector

759 <223> OTHER INFORMATION: Synthetic oligonucleotide probe

755 <212> TYPE: DNA

758 <220> FEATURE:

761

756 <213> ORGANISM: Artificial Sequence

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

. 762 W--> 763 <213> ORGANISM: Artificial Sequence 765 <220> FEATURE: 766 <223> OTHER INFORMATION: Synthetic oligonucleotide probe E--> 768 <400> SEQUENCE: 65 769 catcatcctt gacggactgc atggagaget 30 E--> 772 36 E--> 774 <210> SEQ ID NO: 67 E--> 784 <210> SEQ ID NO: 70 W--> 785 <211> LENGTH: 30 W--> 786 <212> TYPE: DNA W--> 787 <213> ORGANISM: Artificial Sequence · 789 <220> FEATURE: 790 <223> OTHER INFORMATION: Synthetic oligonucleotide probe E--> 792 <400> SEQUENCE: 65 W--> 796 <210> SEQ ID NO: W--> 796 <211> LENGTH: W--> 796 <212> TYPE: W--> 796 <213> ORGANISM: E--> 796 <400> SEQUENCE: 71 W--> 797 ctgcaggagg atccgcgggc cctttgggcc ttcc 34 E--> 799 <210> SEQ ID NO: 72 800 <211> LENGTH: 31 801 <212> TYPE: DNA 802 <213> ORGANISM: Artificial W--> 818 <130> FILE REFERENCE: P1066P2 W--> 818 <130> FILE REFERENCE: P1066P2 W--> 820 <140> CURRENT APPLICATION NUMBER: US 09/068,377A 821 <141> CURRENT FILING DATE: 1998-05-08 W--> 823 <150> PRIOR APPLICATION NUMBER: 828 Ala Arg Lys Ala Gly Gly Gln Thr Glu Met Asn Ser Leu Arg Thr E--> 832 90 834 His Ile Gln Leu Ala Leu Ala Leu Arg Glu Glu Leu Arg Ser Leu 145 E--> 838 150 840 Ala Asp Asp Ala Glu Gln Ala Phe Glu Arg Val Ser Ala Asn Gly

846 Lys Glu Ser Ala Thr Glu Ala Glu Arg Val Tyr Arg Gln Asn Ile

W - -> 847

155

1.85

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

235 851 Gln Cys Val Lys Asp Asp Glu Leu Tyr Glu Glu Val Arg Leu Thr W--> 852 245 856 Ser Lys Ser Thr Gly Arg Glu Pro Pro Ala Pro Val Pro Tyr Gln W--> 857 275 330 861 Glu Thr Leu Thr Pro Thr Pro Glu Arg Asn Glu Leu Val Tyr Ala W--> 862 335 340 360 866 Gln Asp Tyr Arg Ala Leu Tyr Asp Tyr Thr Ala Gln Asn Ser Asp W--> 867 365 W--> 869 <213> ORGANISM: Mus Musculus E--> 871 <400> SEQUENCE: 2 872 caatatttca agctatacca agcatacaat caactccaag cttatgccca 50 E--> 874 agaagaagcg gaaggtctcg agcggcgcca E--> 878 cctcctctaa cgttcatgat aacttcatga ataatgaaat cacggctagt 250 E--> 880 aaaattgatg atggtaataa ttcaaaacca E--> 884 gggacgtgct cctggctcct ggcccatgct cagccctgct tgaagcagga 650 E--> 886 gtgctagcat ttgacacaac gcccttggag gatgatggcc E--> 890 ggagctgctc agacagaggg cccaggcgga ggagaggtac gggaaggagc 850 E--> 892 tggtgcagat tgcacgcaag gctggtggcc agacagagat E--> 896 cagaacaaag ccaagcagtg caaggagtca gccacagagg cagaaagagt 1250 E--> 898 gtacaggcaa aatatcgaac aactggagag agcgaggacc E--> 902 gcagtgtgtc aaggatgatg agctctatga ggaagtgcgg ctgacccttg 1450 E--> 904 agggctgtga tgtggaaggt gacatcaatg gcttcatcca E--> 908 tctgatgagc tggacatttc cgcgggagac atcctggcgg tcatcctgga 1850 E--> 910 aggggaggat ggctggtgga ctgtggagcg gaacggacaa E--> 914 caggecteae ggggecagaa eeaageeegg tggtgetggg catqqqetqg 2050.

Samo

E--> 916 gtgctggcta ctctcaataa atgtctccca gaaggaaaaa

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

```
W--> 919
            35
                                45
E--> 921 Tyr Leu Arg
  924 <210> SEQ ID NO: 4
  925 <211> LENGTH: 50
  926 <212> TYPE: PRT
  927 <213> ORGANISM: Homo
  931 Val Asn Glu Val Ile Glu Ile Leu Ile Glu Asp Ser Ser Gly Trp
E--> 932
            20
                  25
E--> 935 Asn Lys Asp Trp
E--> 936
  938 Trp Lys Val Glu
E--> 941
             50
E--> 943 <210> SEQ ID NO: 6
W--> 944 <211> LENGTH: 50
W--> 945 <212> TYPE: PRT
W--> 946 <213> ORGANISM: Homo sapien
  948 <400> SEQUENCE: 6
  949 Leu Tyr Asp Tyr Gln Gly Glu Gly Ser Asp
951 <210> SEQ ID NO: 7
  952 <211> LENGTH: 48
  953 <212> TYPE: PRT
  954 <213> ORGANISM: Homo sapien
  956 <400> SEQUENCE: 7
  957 Leu Tyr Asp Tyr Gln Ala Ala Gly Asp Asp Glu Ile Ser Phe Asp
E--> 961 30
  963 Trp Arg Gly Val Cys Lys Gly Arg Tyr Gly Leu Phe Pro Ala Asn
E--> 968 <210> SEQ ID NO: 10
  969 <211> LENGTH: 45
  970 <212> TYPE: DNA
  971 <213> ORGANISM: Artificial Sequence
  973 <220> FEATURE:
  974 <223> OTHER INFORMATION: Synthetic oligonucleotide probe
E--> 976 <400> SEQUENCE: 7
E--> 979 probe
W--> 981 <210> SEQ ID NO:
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/068,377A

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Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

W--> 981 <211> LENGTH: W--> 981 <212> TYPE: W--> 981 <213> ORGANISM: E--> 981 <400> SEQUENCE: 11 W--> 982 tgcctttctc tccacagg 18 E--> 984 <210> SEQ ID NO: 12 985 <211> LENGTH: 36 986 <212> TYPE: DNA 987 <213> ORGANISM: Artificial E--> 991 <400> SEQUENCE: 14 E--> 992 gcgtttggaa tcactac 17 E--> 994 <210> SEQ ID NO: 15 995 <211> LENGTH: 41 996 <212> TYPE: DNA 997 <213> ORGANISM: Artificial Sequence 999 <220> FEATURE: 1000 <223> OTHER INFORMATION: Synthetic 1001 1002 1004 <220> FEATURE: 1005 <223> OTHER INFORMATION: Synthetic oligonucleotide probe E--> 1007 <400> SEQUENCE: 16 E--> 1008 gtacgcgtcg accgcactct acgactacac tgcacag 37 E--> 1010 <210> SEQ ID NO: W--> 1014 <211> LENGTH: W--> 1014 <212> TYPE: W--> 1014 <213> ORGANISM: E--> 1014 <400> SEQUENCE: 19 1015 gatectegag ttacaccegt gtecactetg etggagga 38 1017 <210> SEQ ID NO: 20 1018 <211> LENGTH: 20 1019 <212> TYPE: PRT W--> 1020 <213> ORGANISM: 1025 Pro Ala Glu Trp Thr E--> 1026 1028 <210> SEQ ID NO: 21 W--> 1029 <211> LENGTH: 19 W--> 1044 <213> ORGANISM: Saccharomyces Pombe E--> 1046 <400> SEQUENCE: 26 1047 Met Leu Thr Lys Ser Leu Gln Gly Ser Glu Asp Ala Gly Met Asp E--> 1048 1 E--> 1051 30 1053 Ile Asp Glu Phe Tyr Ala Lys Arg Ala Ser Ile Glu Arg Glu Tyr E--> 1054 35

85

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

E--> 1058 Asn Thr Glu Leu Arg Asn Lys Ile Arg Glu Tyr Ile Asp Gln Thr E--> 1.059 9.5 E--> 1063 Gln Lys Lys Thr Ala Leu Glu Ile Asp Leu Ser Glu Lys Lys Asp E--> 1064 1.25 180 E--> 1068 Arg Glu Thr Asn Glu Leu Leu Thr Val Thr Arg Glu Trp Ile E--> 1069 185 190 E--> 1073 Tyr Arg Leu Glu Phe Leu Lys Thr Asn Met Trp Ala Tyr Ala Asn E--> 1074 215 E--> 1078 Pro Glu Phe Asn Asp Tyr Phe Lys Glu Asn Gly Leu Asn Tyr Asp 275 E--> 1079 280 E--> 1083 Ser Arg Pro Ser Ala Ser Ala Ser Leu Ala Ser Ser Pro Thr Arg 305 E--> 1084 E--> 1087 Glu Ala Glu Ser Gln Lys Pro Val E--> 1088 365 370 E--> 1093 Thr Ser Met Asp Val Arg Ser E--> 1094 400 405 1096 Ser E--> 1103 ???????????????5?4?????5????+++++???????**

Same

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/068,377A
DATE: 02/22/2001
TIME: 10:34:24

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

L:616 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:26 L:616 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:617 M:252 E: No. of Seq. differs, <211>LENGTH:Input:907 Found:500 SEQ:26 L:619 M:216 E: (34) Seq.#s missing, SEQ ID NOS: 27 thru 32 L:631 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:33 differs:34 L:634 M:214 E: (33) Seq.# missing, SEQ ID NO:34 L:640 M:282 W: Numeric Field Identifier Missing, <212> is required. L:640 M:282 W: Numeric Field Identifier Missing, <213> is required. L:640 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:35 differs:37 L:643 M:216 E: (34) Seq. #s missing, SEQ ID NOS: 36 thru 37 L:645 M:310 E: (3) Wrong or Missing Sequence Type, TYPE: L:650 M:280 W: Numeric Identifier already exists, Length not replaced. L:651 M:280 W: Numeric Identifier already exists, Type not replaced. L:657 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:39 differs:37 L:661 M:216 E: (34) Seq. #s missing, SEQ ID NOS: 40 thru 41 L:674 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:42 differs:43 L:675 M:252 E: No. of Seq. differs, <211>LENGTH:Input:47 Found:29 SEQ:42 L:677 M:214 E: (33) Seq.# missing, SEQ ID NO:43 L:682 M:282 W: Numeric Field Identifier Missing, <212> is required. L:682 M:282 W: Numeric Field Identifier Missing, <213> is required. L:682 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:44 differs:46 $\rm L\!:\!685~M\!:\!216~E\!:$ (34) Seq.#s missing, SEQ ID NOS: 45 thru 46 L:688 M:201 W: Mandatory field data missing, ORGANISM L:691 M:280 W: Numeric Identifier already exists, Length not replaced. L:692 M:280 W: Numeric Identifier already exists, Type not replaced. L:693 M:280 W: Numeric Identifier already exists, Organism not replaced. L:698 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:47 differs:48 L:699 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:10 SEQ:47 L:700 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:701 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:48 L:701 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:701 M:252 E: No. of Seq. differs, <211>LENGTH:Input:34 Found:10 SEQ:47 L:707 M:282 W: Numeric Field Identifier Missing, <210> is required. $L:707\ M:282\ W:\ Numeric\ Field\ Identifier\ Missing,\ <211>$ is required. L:707 M:282 W: Numeric Field Identifier Missing, <212> is required. L:707 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:47 differs:51 L:713~M:216~E: (34) Seq.#s missing, SEQ ID NOS: 48 thru 52 L:724 M:216 E: (34) Seq. #s missing, SEQ ID NOS: 54 thru 55 L:725 M:280 W: Numeric Identifier already exists, Length not replaced. L:726 M:280 W: Numeric Identifier already exists, Type not replaced. L:727 M:280 W: Numeric Identifier already exists, Organism not replaced. L:730 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER L:736 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:56 differs:57 L:739 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:740 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:740 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:2

L:740 M:252 E: No. of Seq. differs, <211>LENGTH:Input:42 Found:37 SEQ:53 L:745 M:282 W: Numeric Field Identifier Missing, <210> is required.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/068,377A
DATE: 02/22/2001
TIME: 10:34:24

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

L:745 M:282 W: Numeric Field Identifier Missing, <211> is required. L:745 M:282 W: Numeric Field Identifier Missing, <212> is required. L:745 M:282 W: Numeric Field Identifier Missing, <213> is required. L:745 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:56 differs:60 L:748 M:216 E: (34) Seq. #s missing, SEQ ID NOS: 57 thru 60 L:750 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER L:754 M:280 W: Numeric Identifier already exists, Length not replaced. L:763 M:280 W: Numeric Identifier already exists, Organism not replaced. L:768 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:62 differs:65 L:770 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:771 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:65 L:771 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:4 L:772 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:65 L:772 M:252 E: No. of Seq. differs, <211>LENGTH:Input:41 Found:30 SEQ:61 L:774 M:216 E: (34) Seq. #s missing, SEQ ID NOS: 63 thru 66 L:784 M:216 E: (34) Seq. #s missing, SEQ ID NOS: 68 thru 69 $L:785 \ M:280 \ W:$ Numeric Identifier already exists, Length not replaced. $L:786\ M:280\ W:$ Numeric Identifier already exists, Type not replaced. $\hbox{L:787 M:280 W: Numeric Identifier already exists, Organism not replaced.}$ L:792 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:70 differs:65 L:793 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:794 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:794 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:794 M:252 E: No. of Seq. differs, <211>LENGTH:Input:33 Found:0 SEQ:67 L:796 M:282 W: Numeric Field Identifier Missing, <210> is required. L:796 M:282 W: Numeric Field Identifier Missing, <211> is required. $L:796\ M:282\ W:$ Numeric Field Identifier Missing, <212> is required. L:796 M:282 W: Numeric Field Identifier Missing, <213> is required. L:796 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:70 differs:71 L:799 M:214 E: (33) Seq.# missing, SEQ ID NO:71 L:818 M:280 W: Numeric Identifier already exists, <130> found multiple times L:818 M:281 W: Numeric Fields not Ordered, <130> not ordered!. $L:820\ M:280\ W:$ Numeric Identifier already exists, <140> found multiple times L:820 M:281 W: Numeric Fields not Ordered, <140> not ordered!. L:821 M:280 W: Numeric Identifier already exists, <141> found multiple times L:821 M:281 W: Numeric Fields not Ordered, <141> not ordered!. L:823 M:281 W: Numeric Fields not Ordered, <150> not ordered!. L:830 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:830 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:831 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:831 M:254 E: No. of Bases conflict, LENGTH:Input:85 Counted:48 SEQ:72 L:831 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:48 M:254 Repeated in SeqNo=72 L:836 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:836 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:837 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:837 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:48 L:841 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0

L:842 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/068,377A

DATE: 02/22/2001 TIME: 10:34:24

Input Set : A:\PTO.txt

L:843 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0

Output Set: N:\CRF3\02222001\1068377A.raw

L:843 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:48 L:847 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:848 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:849 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:849 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:48 L:852 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:853 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:854 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:854 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:48 L:857 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:858 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:859 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:859 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:50 L:862 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:863 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:864 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:864 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:48 L:867 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:868 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:868 M:252 E: No. of Seq. differs, <211>LENGTH:Input:31 Found:338 SEQ:72 L:869 M:280 W: Numeric Identifier already exists, Organism not replaced. L:871 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:72 differs:2 L:875 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:876 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:876 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:50 L:881 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:882 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:882 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:54 L:887 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:888 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:888 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:51 L:893 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:894 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:894 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:55 L:899 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:900 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:900 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:57 L:905 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:906 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:906 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:57 L:911 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:912 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:912 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:57 L:917 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:918 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:918 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:919 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:921 M:252 E: No. of Seq. differs, <211>LENGTH:Input:31 Found:1115 SEQ:72

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/068,377A
DATE: 02/22/2001
TIME: 10:34:24

Input Set : A:\PTO.txt

L:932 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0

Output Set: N:\CRF3\02222001\I068377A.raw

L:933 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:933 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1 M:332 Repeated in SeqNo=4 L:934 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:934 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1 L:939 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:939 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1 L:940 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:940 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1 L:941 M:252 E: No. of Seq. differs, <211>LENGTH:Input:50 Found:30 SEQ:4 L:943 M:214 E: (33) Seq.# missing, SEQ ID NO:5 L:944 M:280 W: Numeric Identifier already exists, Length not replaced. L:945 M:280 W: Numeric Identifier already exists, Type not replaced. L:946 M:280 W: Numeric Identifier already exists, Organism not replaced. L:950 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0 L:950 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:950 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1 L:950 M:252 E: No. of Seq. differs, <211>LENGTH:Input:50 Found:10 SEQ:4 L:958 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:7 L:959 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:959 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1 M:332 Repeated in SeqNo=7 L:965 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:965 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1 L:966 M:252 E: No. of Seq. differs, <211>LENGTH:Input:48 Found:30 SEQ:7 L:968 M:216 E: (34) Seq. #s missing, SEQ ID NOS: 8 thru 9 L:976 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:10 differs:7 L:977 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:1 L:978 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:978 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:3 L:979 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:0 L:979 M:252 E: No. of Seq. differs, <211>LENGTH:Input:45 Found:0 SEQ:10 L:981 M:282 W: Numeric Field Identifier Missing, <210> is required. L:981 M:282 W: Numeric Field Identifier Missing, <211> is required. L:981 M:282 W: Numeric Field Identifier Missing, <212> is required. L:981 M:282 W: Numeric Field Identifier Missing, <213> is required. L:981 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:10 differs:11 $L\!:\!984$ M:214 E: (33) Seq.# missing, SEQ ID NO:11 L:991 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:12 differs:14 L:992 M:252 E: No. of Seq. differs, <211>LENGTH:Input:36 Found:17 SEQ:12 L:994 M:216 E: (34) Seq.#s missing, SEQ ID NOS: 13 thru 14 L:1007 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:15 differs:16 L:1008 M:252 E: No. of Seq. differs, <211>LENGTH:Input:41 Found:37 SEQ:15 L:1010 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQ ID NO L:1014 M:282 W: Numeric Field Identifier Missing, <211> is required. L:1014 M:282 W: Numeric Field Identifier Missing, <212> is required. L:1014 M:282 W: Numeric Field Identifier Missing, <213> is required. L:1014 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:0 differs:19

VERIFICATION SUMMARY DATE: 02/22/2001 PATENT APPLICATION: US/09/068,377A TIME: 10:34:24

Input Set : A:\PTO.txt

Output Set: N:\CRF3\02222001\I068377A.raw

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L:1020 M:201 W: Mandatory field data missing, ORGANISM
L:1026 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
L:1026 M:252 E: No. of Seq. differs, <211>LENGTH:Input:20 Found:5 SEQ:20
L\!:\!1029 M\!:\!280 W\!: Numeric Identifier already exists, Length not replaced.
L:1030 M:250 E: Invalid Numeric Identifier, INVALID IDENTIFIER
L:1044 M:280 W: Numeric Identifier already exists, Organism not replaced.
L:1046 M:212 E: (34) Invalid or duplicate Sequence ID Number, SEQUENCE ID NOS:21 differs:26
L:1048 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
L:1049 M:333 E: Wrong sequence grouping, Amino acids not in groups!
M:332 Repeated in SeqNo=21
L:1055 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1055 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1060 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1060 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1065 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1065 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1070 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1070 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1075 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1075 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1080 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1080 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1085\ M:333\ E: Wrong sequence grouping, Amino acids not in groups!
L:1086 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1086 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1091 M:333 E: Wrong sequence grouping, Amino acids not in groups! L:1092 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1092 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1097 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1098 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1098 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1099 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1099 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1100 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1100 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1101 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:1101 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1102\ M:333\ E: Wrong sequence grouping, Amino acids not in groups!
L:1102 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1103 M:342 E: Invalid Stop Code On Error, STOP CODON:*
L:1103 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:1
L:1103 M:252 E: No. of Seq. differs, <211>LENGTH:Input:20 Found:151 SEQ:20
L:23 M:203 E: No. of Seq. differs, <160> Number Of Sequences:Input (73) Counted (47)
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